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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,903	07/17/2003	Daniel John Park	SLA.1291	2834
55376	7590	04/03/2007		
ROBERT D. VARITZ 4915 S.E. 33RD PLACE PORTLAND, OR 97202			EXAMINER SMITH, MARCUS	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/03/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/622,903	Applicant(s) PARK, DANIEL JOHN	
	Examiner Marcus R. Smith	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/16/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. The abstract of the disclosure is objected to because it reads like a claim.

Correction is required. See MPEP § 608.01(b).

Claim Objections

3. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims

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are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 13 (starting on page 20) -20 been renumbered 14-21.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kshirsagar et al. (US 6,516,000) in view of Datta et al. (US 6,295,276).

with regard to claims 1 and 14, Kshirsagar et al. teaches:

A method of controlling packet transmission in a power line communication (PLC)-based local area network (LAN) comprising:

providing a PLC central coordinator (CRP server, 203) in the PLC LAN for managing allocation of PLC LAN resources (column 7, lines 27-35: The examiner views the registration procedure is method of managing allocation resources to different hosts.); and

providing, for any packet traversing the PLC LAN, a destination (target) station MAC address, a source station MAC address, and a temporary equipment identifier (TEI) (IP address) for the transmitting PLC station (column 7, lines 35-50).

(the other limitation in claim 14)

removing 48-bit MAC addresses of the MAC header for bridged packets (column 10, lines 40-50), and interworking the bridged packets between the PLC LAN and any non-PLC LAN using the ConnectionID (VCI) (column 10, lines 40-50: The examiner views maps a MAC address to ATM address as a method removing the MAC header and replacing with ATM header (address) of a bridged packet.) and TEIs only in the PLC LAN and using 48-bit MAC addresses outside the PLC LAN (column 10, lines 20-30: The ATM network uses ATM (VPI/VCI) addresses and shared media interfaces uses the MAC addresses to communicate with LANE sides of the Bridge, 630.).

Kshirsagar et al. discloses all of the subject matter as described above except for a method of transmitting packets over power lines in a local area network.

Datta et al. teaches a controller (central coordinator) for nodes 102 in a LAN to connect to WAN through routers (bridge devices) (figure 2: column 5, lines 53-65). Wires connect the nodes in the LAN to each other and those wires can be modulated AC power lines (column 1, lines 45-50) in order to use bandwidth more efficiently and delay expense upgrades to line technology (column 2, lines 55-60).

Therefore it would have been obvious to one having ordinary skill in the art at the time invention was made to use power line communication in LAN as taught by Datta et al. in the system of Kshirsagar et al. in order to use bandwidth more efficiently and delay expense upgrades to line technology.

with regard to claims 2 and 21, Kshirsagar et al. teaches:

The method of claim 1 which includes using the ConnectionID (VCI) in place of a MAC addresses for any packet while the packet is traversing the PLC LAN (column 10, lines 40-52).

with regard to claim 3, Kshirsagar et al. teaches:

The method of claim 1 which includes providing a PLC MAC bridging device for storing information about the source station and the destination station for a connection at the PLC bridge device (column 9, lines 37-45).

with regard to claim 4, Kshirsagar et al. teaches:

The method of claim 3 wherein the PLC MAC bridging device caches a source TEI and a source 48-bit MAC address of all broadcast data packets received from other bridge devices on the same PLC LAN (column 12, lines 28-42).

with regard to claim 5 (see figure 7), Kshirsagar et al. teaches:

The method of claim 3 wherein a PLC MAC bridge (710) establishes a connection for bridged traffic only when traffic from a non-PLC LAN (715) source station is received for a destination station on the PLC LAN (730) where the destination station's TEI, bridge TEI and destination station 48-bit MAC address are cached (711 and 712) in the bridge (column 10, lines 38-59).

with regard to claim 6 (see figure 6), Kshirsagar et al. teaches:

The method of claim 3 wherein a PLC MAC (630) bridge establishes a connection for bridged traffic only when traffic from a PLC LAN (610) source station is received for a destination station not on the PLC LAN (615) where the bridge TEI and

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destination station 48-bit MAC address are cached (612 or 611) in the bridge (column 6, lines 46-67 through column 10, lines 1-38).

with regard to claims 7 and 18, Kshirsagar et al. teaches:

The method of claim 1/14 which includes establishing a unique connection for every pair of stations that cross a PLC MAC bridge (column 9, lines 37-51: The VCI is associated with the request MAC address can be view as the unique connection.).

with regard to claims 8 and 19, Kshirsagar et al. teaches:

The method of claim 1/14 which includes bridging packets across the PLC LAN only in PLC bridging devices (column 9, lines 37-41: Teaches how the bridge is used for MAC frame in ATM network. And Figure 9, column 11, lines 12-26: Teaches how the bridge does not bridged packets if the connection is not over ATM network.).

with regard to claim 9, Kshirsagar et al. teaches:

The method of claim 1 which includes removing 48-bit MAC addresses of the MAC header for bridged packets (column 10, lines 40-50: The examiner views maps a MAC address to ATM address as a method removing the MAC header and replacing with ATM header (address) of a bridged packet.).

with regard to claim 10 (see figure 6 or figure 7), Kshirsagar et al. teaches:

The method of claim 9 which includes interworking the bridged packets between the PLC LAN and any non-PLC LAN using the ConnectionID and TEIs only in the PLC LAN and using 48-bit MAC addresses outside the PLC LAN (column 7, lines 38-59).

with regard to claim 11, Kshirsagar et al. teaches:

The method of claim 10 wherein said interworking of packets from a non-PLC LAN by a bridge device includes the re-addressing of the packet by replacing the source 48-bit MAC address and the designation 48-bit MAC address with a ConnectionID, which is contained in the ConnectionID field in the MAC Header (column 10, lines 40-50: The examiner views maps a MAC address to ATM address as a method removing the MAC header and replacing with ATM header (VCI) of a bridged packet.).

with regard to claim 12, Kshirsagar et al. teaches:

The method of claim 10 wherein, for packets which are transmitted from the PLC-LAN onto a non-PLC LAN across a bridge device, interworking the packets, including removing the PLC MAC header and forming the LAN MAC header containing the source station 48-bit MAC address and the destination 48-bit MAC address (column 10, lines 24-35).

with regard to claims 13 and 20, Kshirsagar et al. teaches:

The method of claim 1/14 which includes, for packet traffic transmitted intra-PLC, identifying a packet's source station and destination station by inspecting the ConnectionID field in the PLC MAC header and referencing a connection table (column 12, lines 28-42).

with regard to claim 15, Kshirsagar et al. teaches:

The method of claim 14 wherein a PLC MAC bridge establishes a connection for bridged traffic only when traffic from a non-PLC LAN source station is received for a destination station on the PLC LAN where the destination station's TEI, bridge TEI and

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destination station 48-bit MAC address are cached in the bridge (column 10, lines 38-59); and

wherein a PLC MAC bridge establishes a connection for bridged traffic only when traffic from a PLC LAN source station is received for a destination station not on the PLC LAN where the bridge TEI and destination station 48-bit MAC address are cached in the bridge (column 6, lines 46-67 through column 10, lines 1-38).

with regard to claim 16, Kshirsagar et al. teaches:

The method of claim 14 which includes providing a PLC MAC bridging device for storing information about the source station and the destination station for a connection at the PLC bridge device (column 9, lines 37-45),

wherein the PLC MAC bridging device caches a source TEI and a source 48-bit MAC address of all broadcast data packets received from other bridge devices on the same PLC LAN (column 12, lines 28-42).

with regard to claim 17, Kshirsagar et al. teaches:

The method of claim 14 wherein said interworking of packets from a non-PLC LAN by a bridge device includes the re-addressing of the packet by replacing the source 48-bit MAC address and the designation 48-bit MAC address with a ConnectionID, which is contained in the ConnectionID field in the MAC Header; and wherein, for packets which are transmitted from the PLC-LAN onto a non-PLC LAN across a bridge device, interworking the packets, including removing the PLC MAC header and forming the LAN MAC header containing the source station 48-bit MAC address and the destination 48-bit MAC address (column 10, lines 40-50: The examiner views maps a

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MAC address to ATM address as a method removing the MAC header and replacing with ATM header (VCI) of a bridged packet.).

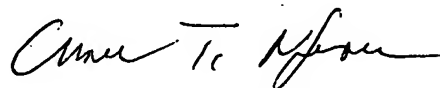
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus R. Smith whose telephone number is 571 270 1096. The examiner can normally be reached on Mon-Fri. 7:30 am - 5:00 pm every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRS 3/20/07



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